

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims

1-66. (Cancelled)

67. (Currently Amended): An endoluminal apparatus comprising:
an elongated main body having a proximal end, a distal end and at least one lumen extending through the main body, the main body having at least a first section near the proximal end and a second section near the distal end, and with the first section comprising a plurality of nested links with substantially all adjacent links having mating surfaces that are in contact with but that are not connected to each other,
wherein the first section may be selectively switched between a substantially flexible condition and a substantially rigid condition, and
wherein the second section is steerable relative to the first section; and
a scope extended through at least a portion of said at least one lumen, said scope being moveable through said lumen relative to said elongated main body.

68. (Previously Presented): The apparatus of claim 67 wherein the main body includes a torque transmitting feature which provides torque transmission between the proximal and distal ends while the main body is unlocked, to cause the main body to rotate substantially about its central axis.

69. (Previously Presented): The apparatus of claim 68 wherein the distal end comprises an atraumatic tip having at least one opening corresponding to the at least one lumen.

70. (Previously Presented): The apparatus of claim 67 wherein the second section may be switched between a flexible state and a substantially rigid state independently of the first section.

71. (Previously Presented): The apparatus of claim 67 with substantially each link in the first section configured to allow partial rotation relative to adjacent links and with the links arranged so that the first section can bend in at least two dimensions.

72. (Cancelled).

73. (Previously Presented): The apparatus of claim 67 wherein the second section is steerable in up to three dimensions relative to the first section.

74. (Previously Presented): The apparatus of claim 73 wherein the second section is steerable in a single dimension relative to the first section.

75. (Previously Presented): The apparatus of claim 67 further comprising at least one tensioning element routed through the elongated main body, wherein compression of the plurality of adjacent links by a tensioning element places the first section, or the second section, or both sections into the substantially rigid condition.

76. (Previously Presented): The apparatus of claim 67 further comprising at least two liners extending along a length of the elongated main body.

77. (Previously Presented): The apparatus of claim 76 wherein at least one liner can transmit torque.

78. (Previously Presented): The apparatus of claim 67 further comprising a liner creating a lumen in the main body.

79. (Previously Presented): The apparatus of claim 78 wherein the liner has a hydrophilic coating.

80. (Previously Presented): The apparatus of claim 67 wherein said scope comprises an endoscope extendable through the main body, with the endoscope having a steerable tip.

81. (Cancelled)

82. (Previously Presented): The apparatus of claim 67 further comprising an insuflation lumen within the main body.

83. (Previously Presented): The apparatus of claim 80 wherein a first end of the endoscope is positionable in an off-axis position relative to the elongated main body such that a region of interest spaced apart from the elongated main body may be viewed at an angle via the endoscope.

84. (Previously Presented): The apparatus of claim 67 further comprising a Y-port located along the first section, wherein the Y-port is in communication with at least one lumen extending through the elongated main body.

85. (Currently Amended): Apparatus comprising:
a first section joined to a second section;
at least one lumen extending through the first and second sections;
with the first section and the second section transformable between a substantially flexible condition and a shape-locked condition, independently of each other, using a tension control mechanism comprising a plurality of tension wires extending through tension wire lumens in said first section and said second section and at least one pulley operably coupled to said plurality of tension wires; and
with the second section having a steerable front end; and

a scope extended through at least a portion of said at least one lumen, said scope being moveable through said lumen relative to said first section and said second section.

86. (Cancelled)

87. (Currently Amended): An endoluminal apparatus, comprising:
a flexible shaft having a first section and a second section;
at least one lumen within the flexible shaft;
a locking mechanism permanently in the first section for holding the first section in a selected shape, said locking mechanism comprising a plurality of tension wires extending through tension wire lumens in said first section and said second section and at least one pulley operably coupled to said plurality of tension wires;
an articulation mechanism in the second section for maneuvering the second section in at least two dimensions; and
a scope extended through at least a portion of said at least one lumen, said scope being moveable through said lumen relative to said flexible shaft.

88. (Currently Amended): The apparatus of claim 87 with the locking mechanism comprising a first linkage including a plurality of first links, with adjacent first links in the first linkage pivotably connected to abutting each other, and with at least one first section tension element wire extending through substantially each of the first links.

89. (Currently Amended): The apparatus of claim 88 with the articulation mechanism comprising a second linkage including a plurality of second links, with adjacent second links in the second linkage pivotably connected to abutting each other, and with at least one second tension element wire extending through substantially each of the second links.

90. (Previously Presented): The apparatus of claim 88 with substantially each first link having a contoured front surface adapted to engage with a contoured back surface of an adjacent first link.

91. (Previously Presented): The apparatus of claim 88 with the at least one lumen extending through the first links and the second links.

92. (Currently Amended): Apparatus, comprising:
a shaft having a first section and a second section;
a plurality of first links in the first section, with adjacent first links pivotably connected to abutting each other but not connected to each other, and with substantially each first link having a contoured front surface adapted to engage with a contoured back surface of an adjacent first link;
at least one first section tension element extending through substantially each of the first links;
a plurality of second links in the second section, with adjacent second links pivotably connected to abutting each other but not connected to each other, and with substantially each second link having a contoured front surface adapted to engage with a contoured back surface of an adjacent second link;
at least one second section steering wire extending through substantially each of the first links and the second links; and
at least one lumen extending through substantially each of the first links and the second links; and
a scope extended through at least a portion of said at least one lumen, said scope being moveable through said lumen relative to said shaft.

93. (Currently Amended): An endoluminal apparatus, comprising:
a flexible shaft having a first section and a second section;
at least one lumen within the flexible shaft;
shape locking means formed in the first section for holding the first section in a desired shape, said shape locking means comprising a plurality of tension wires extending through tension wire lumens in said first section and said second section and at least one pulley operably coupled to said plurality of tension wires; and

steering means associated with the second section for steering an end of the second section in at least two dimensions; and

a scope extended through at least a portion of said at least one lumen, said scope being moveable through said lumen relative to said flexible shaft.

94. (Previously Presented): The apparatus of claim 67 with the second section comprising a plurality of links.